

## TRAITÉ DE COOPERATION EN MATIÈRE DE BREVETS



## PCT

REC'D 13 JUL 2004

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RAPPORT D'EXAMEN PRELIMINAIRE INTERNATIONAL  
(article 36 et règle 70 du PCT)

Référence du dossier du déposant ou du mandataire	<b>POUR SUITE A DONNER</b> voir la notification de transmission du rapport d'examen préliminaire international (formulaire PCT/PEA/416)	
Demande internationale No. PCT/FR 03/02379	Date du dépôt international (jour/mois/année) 28.07.2003	Date de priorité (jour/mois/année) 29.07.2002
Classification internationale des brevets (CIB) ou à la fois classification nationale et CIB A23L1/30		
Déposant LABORATOIRES EXPANSCIENCE et al.		
<p>1. Le présent rapport d'examen préliminaire international, établi par l'administration chargée de l'examen préliminaire international, est transmis au déposant conformément à l'article 36.</p> <p>2. Ce RAPPORT comprend 5 feuilles, y compris la présente feuille de couverture.</p> <p><input type="checkbox"/> Il est accompagné d'ANNEXES, c'est-à-dire de feuilles de la description, des revendications ou des dessins qui ont été modifiées et qui servent de base au présent rapport ou de feuilles contenant des rectifications faites auprès de l'administration chargée de l'examen préliminaire international (voir la règle 70.16 et l'instruction 607 des Instructions administratives du PCT).</p> <p>Ces annexes comprennent    feuilles.</p> <p>3. Le présent rapport contient des indications et les pages correspondantes relatives aux points suivants :</p> <p>I <input checked="" type="checkbox"/> Base de l'opinion</p> <p>II <input type="checkbox"/> Priorité</p> <p>III <input type="checkbox"/> Absence de formulation d'opinion quant à la nouveauté, l'activité inventive et la possibilité d'application industrielle</p> <p>IV <input type="checkbox"/> Absence d'unité de l'invention</p> <p>V <input checked="" type="checkbox"/> Déclaration motivée selon la règle 66.2(a)(ii) quant à la nouveauté, l'activité inventive et la possibilité d'application industrielle; citations et explications à l'appui de cette déclaration</p> <p>VI <input type="checkbox"/> Certains documents cités</p> <p>VII <input type="checkbox"/> Irrégularités dans la demande internationale</p> <p>VIII <input type="checkbox"/> Observations relatives à la demande internationale</p>		
Date de présentation de la demande d'examen préliminaire internationale 24.02.2004	Date d'achèvement du présent rapport 14.07.2004	
Nom et adresse postale de l'administration chargée de l'examen préliminaire international  Office européen des brevets D-80298 Munich Tél. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Fonctionnaire autorisé Muller, I N° de téléphone +49 89 2399-8716 	

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## Formulaire PCT/PEA/409 (janvier 2004)

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PRÉLIMINAIRE INTERNATIONAL**

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6. Observations complémentaires, le cas échéant :

**V. Déclaration motivée selon l'article 35(2) quant à la nouveauté, l'activité inventive et la possibilité d'application industrielle; citations et explications à l'appui de cette déclaration**

1. Déclaration

Nouveauté

Oui: Revendications 1-14

Non: Revendications

Activité inventive

Oui: Revendications 1-14

Non: Revendications

Possibilité d'application industrielle

Oui: Revendications 1-14

Non: Revendications

2. Citations et explications

**voir feuille séparée**

**Concernant le point V:**

**Déclaration motivée quant à la nouveauté, l'activité inventive et la possibilité d'application industrielle; citations et explications à l'appui de cette déclaration**

**1. Il est fait référence aux documents suivants:**

- D1: FR-A-2 678 614 (PHARMASCIENCE LAB) 8 janvier 1993 (1993-01-08)
- D2: FR-A-2 678 632 (PHARMASCIENCE LAB) 8 janvier 1993 (1993-01-08)
- D3: FR-A-2 798 667 (PHARMASCIENCE LAB) 23 mars 2001 (2001-03-23)
- D4: FARINES M ET AL: "Influence of Avocado Oil Processing on the Nature of Some Unsaponifiable Constituents" JOURNAL OF THE AMERICAN OIL CHEMISTS' SOCIETY, AMERICAN OIL CHEMISTS' SOCIETY, CHAMPAIGN, US, vol. 72, no. 4, 1995, pages 473-476, XP002144061 ISSN: 0003-021X
- D5: RANCUREL A: "L'avocat: Son huile et son insaponifiable. Utilisation cosmétique" PARFUMS, COSMETIQUES, AROMES, SOCIETE D'EXPANSION TECHNIQUE ET ECONOMIQUE S.A. PARIS, FR, vol. 61, 1985, pages 91-95, XP002144060 ISSN: 0337-3029
- D6: FR-A-2 653 974 (EXPANCHIMIE SARL) 10 mai 1991 (1991-05-10)
- D7: US-A-4 560 568 (CURIEL MAURICE) 24 décembre 1985 (1985-12-24)

**2. Aucun des documents D1 à D7 divulgue un procédé comprenant les étapes (1) à (4) définies dans la revendication indépendante 1.**

L'objet de la revendication 1 est donc nouveau (article 33(2) PCT).

**3. Les documents D1, D2 et D3 sont considérés comme étant l'état de la technique le plus proche de l'objet de la revendication 1, décrivant tous des procédés d'obtention d'un insaponifiable d'avocat riche en lipides furaniques comprenant un traitement thermique du fruit à 80°C, puis une extraction de l'huile, puis une concentration par distillation moléculaire, puis une saponification ainsi qu'une extraction de l'insaponifiable (voir D1: page 3, l. 10-l. 32; D2: exemple 1 en particulier; D3: exemple 1, 2 et rev. 6).**

La différence technique objective de la présente revendication 1 consiste en une étape de traitement thermique de l'huile extraite à une température comprise entre 80 et 150°C menant à augmentation en teneur de lipides furaniques par rapport à

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**PRELIMINAIRE INTERNATIONAL - FEUILLE SEPARÉE**

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l'état de technique ainsi qu'une réduction en composés oxydés.

Le problème que la présente invention se propose de résoudre peut donc être considéré comme fournir un procédé d'obtention d'un insaponifiable d'avocat menant à un gain en rendement de lipides furaniques ainsi qu'à un produit peu oxydé.

Ni indication, ni suggestion ne peut être vu de l'état de technique D1 à D3 à introduire une étape de traitement thermique de l'huile extraite pour résoudre le problème posé.

L'objet de la revendication 1 est donc considérée comme impliquant une activité inventive (article 33(3) PCT).

4. Les revendications 2 à 14 dépendent de la revendication 1 et satisfont donc également, en tant que telles, aux conditions requises par le PCT en ce qui concerne la nouveauté et l'activité inventive.
5. L'objet des revendications 1 à 14 est applicable dans l'industrie alimentaire ou pharmaceutique.

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Rec'd PCT/PTC 31 JAN 2005

PCT/FR2003/002379



Applicant's or agent's file reference 344976/20549	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/FR2003/002379	International filing date (day/month/year) 28 juillet 2003 (28.07.2003)	Priority date (day/month/year) 29 juillet 2002 (29.07.2002)
International Patent Classification (IPC) or national classification and IPC A23L 1/30, C07D 307/36, C11B 7/00		
Applicant LABORATOIRES EXPANSCIENCE		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of \_\_\_\_\_ sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 24 février 2004 (24.02.2004)	Date of completion of this report 14 July 2004 (14.07.2004)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/FR2003/002379

## I. Basis of the report

## 1. With regard to the elements of the international application:\*

- ☒ the international application as originally filed
- ☒ the description:  
pages \_\_\_\_\_ 1-21 \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☒ the claims:  
pages \_\_\_\_\_ 1-14 \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, as amended (together with any statement under Article 19  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the drawings:  
pages \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the sequence listing part of the description:  
pages \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

## 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

## 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/fig \_\_\_\_\_

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

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**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. Statement**

Novelty (N)	Claims	1-14	YES
	Claims		NO
Inventive step (IS)	Claims	1-14	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-14	YES
	Claims		NO

**2. Citations and explanations****1. Reference is made to the following documents:**

D1: FR-A-2 678 614 (PHARMASCIENCE LAB) 8 January 1993 (1993-01-08);

D2: FR-A-2 678 632 (PHARMASCIENCE LAB) 8 January 1993 (1993-01-08);

D3: FR-A-2 798 667 (PHARMASCIENCE LAB) 23 March 2001 (2001-03-23);

D4: FARINES M ET AL: "Influence of Avocado Oil Processing on the Nature of Some Unsaponifiable Constituents" JOURNAL OF THE AMERICAN OIL CHEMISTS' SOCIETY, AMERICAN OIL CHEMISTS' SOCIETY. CHAMPAIGN, US, vol. 72, no. 4, 1995, pages 473-476, XP002144061 ISSN: 0003-021X;

D5: RANCUREL A: "L'avocat: Son huile et son insaponifiable. Utilisation cosmétique" PARFUMS, COSMETIQUES, AROMES, SOCIETE D'EXPANSION TECHNIQUE ET ECONOMIQUE S.A. PARIS, FR, vol. 61, 1985, pages 91-95, XP002144060 ISSN: 0337-3029;



D6: FR-A-2 653 974 (EXPANCHIMIE SARL) 10 May 1991  
(1991-05-10);

D7: US-A-4 560 568 (CURIEL MAURICE) 24 December 1985  
(1985-12-24).

2. None of documents D1 to D7 discloses a method including steps (1) to (4) defined in independent claim 1.

As a result, the subject matter of claim 1 is novel (PCT Article 33(2)).

3. Documents D1, D2 and D3 are considered to represent the prior art closest to the subject matter of claim 1 and all describe methods for producing unsaponifiable avocado matter that is rich in furan lipids. Said methods include steps of heat treating the fruit at 80°C, extracting the oil, concentrating said oil by means of molecular distillation then saponifying same and extracting the unsaponifiable matter (see D1: page 3, line 10 to line 32; D2: in particular, example 1; D3: examples 1 and 2 and claim 6).

In the present claim 1, the objective technical difference is a step of heat treating the extracted oil at a temperature of between 80°C and 150°C. This leads to an increase in the furan lipid content in comparison with the prior art, as well as a reduction in the oxidised-compound content.

The problem that the present invention is intended to solve can therefore be considered to be that of providing a method for producing unsaponifiable

avocado matter, said method leading to an increased yield of furan lipids as well as providing a relatively non-oxidised product.

There is nothing in the prior art of D1 to D3 to indicate or suggest the addition of a step during which the extracted oil is heat-treated, in order to solve the stated problem.

As a result, the subject matter of claim 1 is considered to involve an inventive step (PCT Article 33(3)).

4. Claims 2 to 14 are dependent on claim 1 and therefore also fulfil, as such, the PCT requirements of novelty and inventive step.
5. The subject matter of claims 1 to 14 is industrially applicable in the food or pharmaceutical industry.